

# Quick Guide of the CM1309

## Introduction

CM1309 machine equipped up/down table, rotating unit, is used for advertising decoration, art and craft, toy, cutting of model, paper product and other industries. Non-metal material such as bamboo, paper, wood, acrylic can be cut and engraved, it also can work on cylinder object such as cup, pencil vase and so on, here is the quick guide of this machine

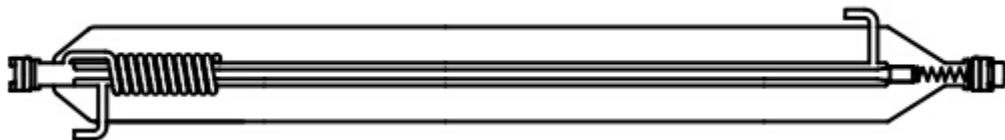
## Unpack

Unpack the package, rotate size block anti-clockwise to up, using forklift to lift the machine, check the spare parts.

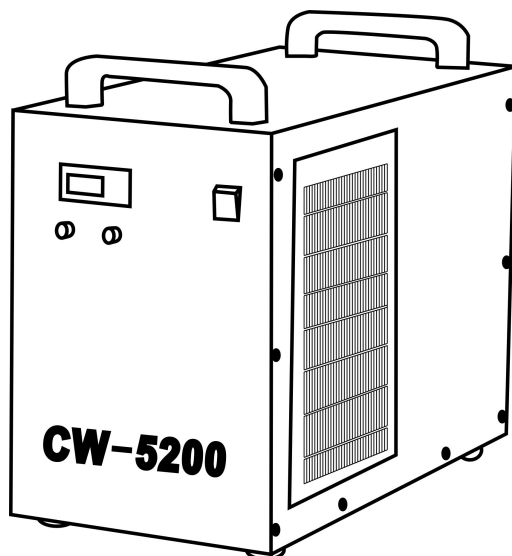
## Spare parts

The spare parts of this machine as follow:

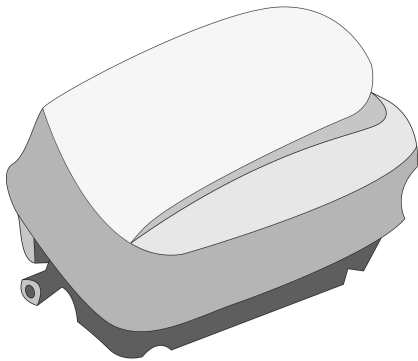
1. Laser tube



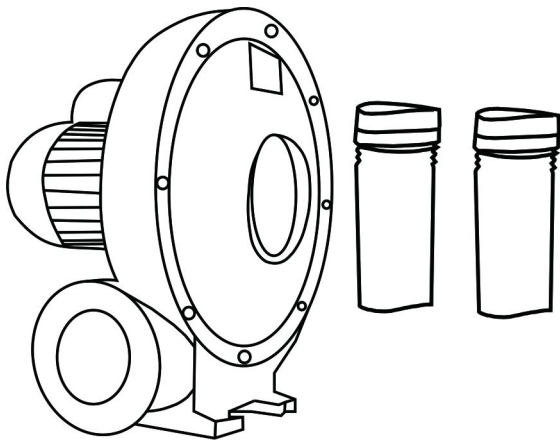
2. Laser chiller



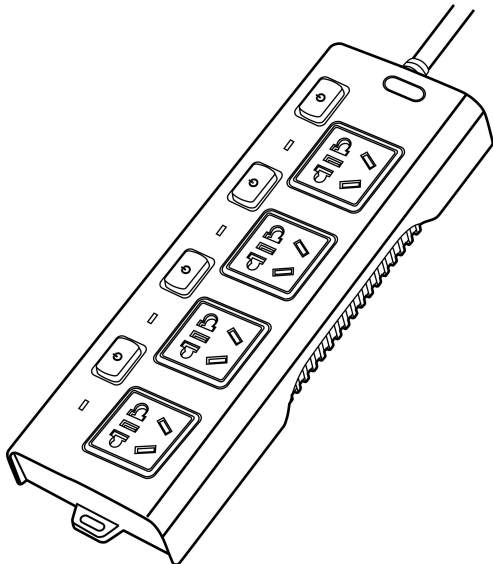
3. Air pump(already installed inside the machine)



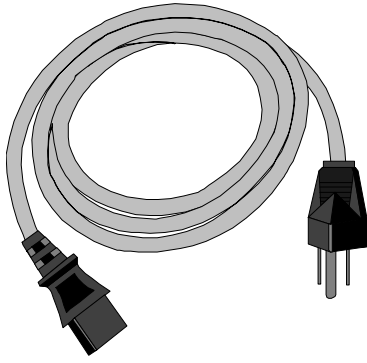
4. Exhaust fan



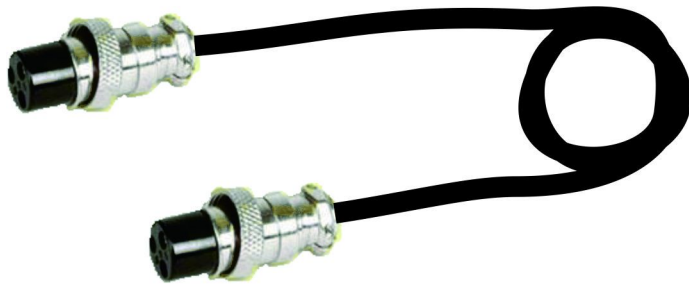
5. Socket



6. Power cable



7. Water alarm cable



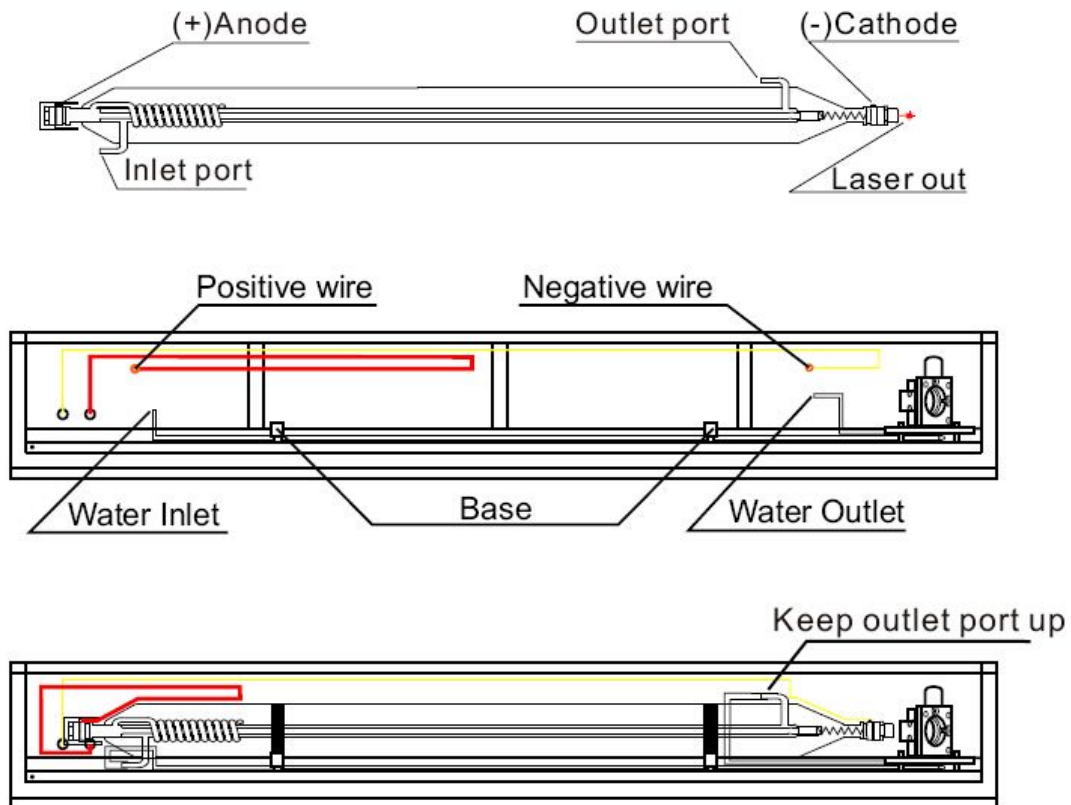
8. Software package



## Installation of machine

### Install the laser tube

1. Open the laser tube box, take out the laser tube carefully, check the tube is OK or not, especially check the out mirror clean or not, and the glass was broken or not;
2. If the tube is no problem, open the laser box of the machine, put the laser tube on the tube base carefully, the laser out side face to the 1<sup>st</sup> mirror, the distance between the 1<sup>st</sup> mirror and laser out side is about 10-15mm. Make sure the center of the laser out side and the mirror center in the same surface, if the left and right center not in the same line, should release the mirror holder screw and move to the same center of the laser out port, if the up and down center not in the same line, should adjust the laser tube height;
3. Connect the laser power positive side to the laser tube positive side, and laser power negative side to the laser tube negative side; Laser chiller outlet connects to laser tube inlet, and laser tube outlet connects to laser chiller inlet side, see as follow:



**Attention: the outlet port of the laser tube must be upward**

## Install other spare parts

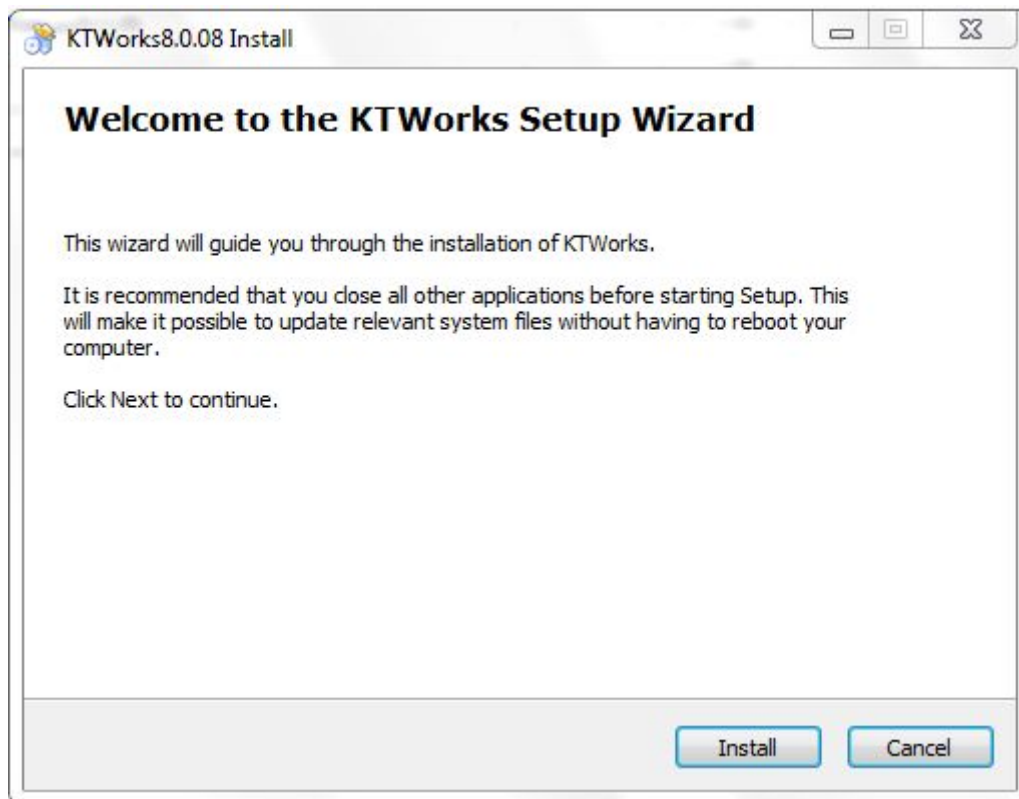
1. Connect the laser chiller. Fill the chiller with purified water, the backside of the chiller has water level, connect chiller outlet port to machine inlet port, and machine outlet port to chiller inlet port; Connect the alarm signal cable between chiller and machine. You can see the chiller backside has "Alarm" port, and also in the machine electrical box side has another port.
2. Install the exhaust fan. Connect the blue tube between the machine back side and the exhaust fan input side, fixed with throat banding, the output of the exhaust fan connect another blue tube.
3. Connect the 220V AC power to the machine and other parts. The machine needs 220V AC, 50/60Hz power, the spare parts frequency depend on the local power frequency, we supply 50Hz and 60Hz both.

## Test machine

1. Adjust laser beam. Open the laser chiller, make sure the water full of the chiller, then switch on the machine, there is a general switch back the machine, you should check that switch on or not. When machine reset normally, press the "POWER" button on the panel, then 220V AC power input to the laser power, press "Min-Power", use the direction key to change the value to 6%, and

change the “Max-Power” to 8% . Now we press “pulse” button, the tube will be laser out, then we can calibrate laser beam according to the calibrate laser beam manual.

2. Install software. Install the “Laserworks”. Double click “KTWorksV8Setup” icon, a dialog box as follow shows:



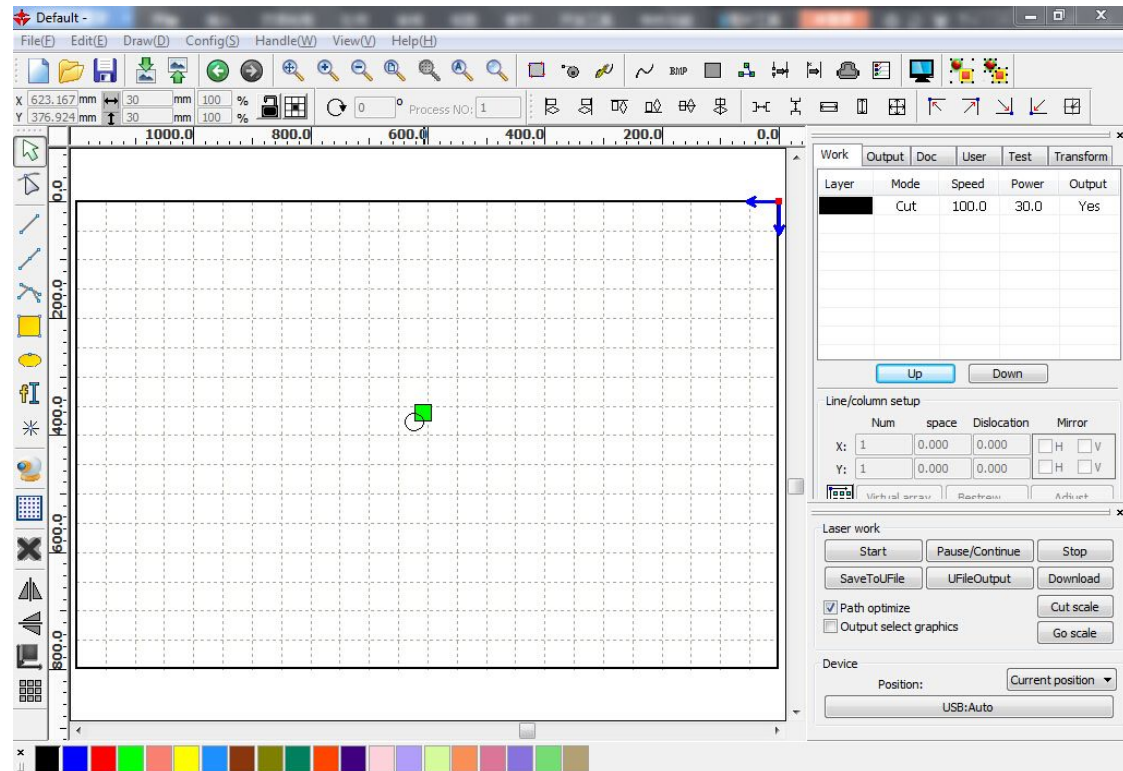
Click the "Install" button, see the follow interface :



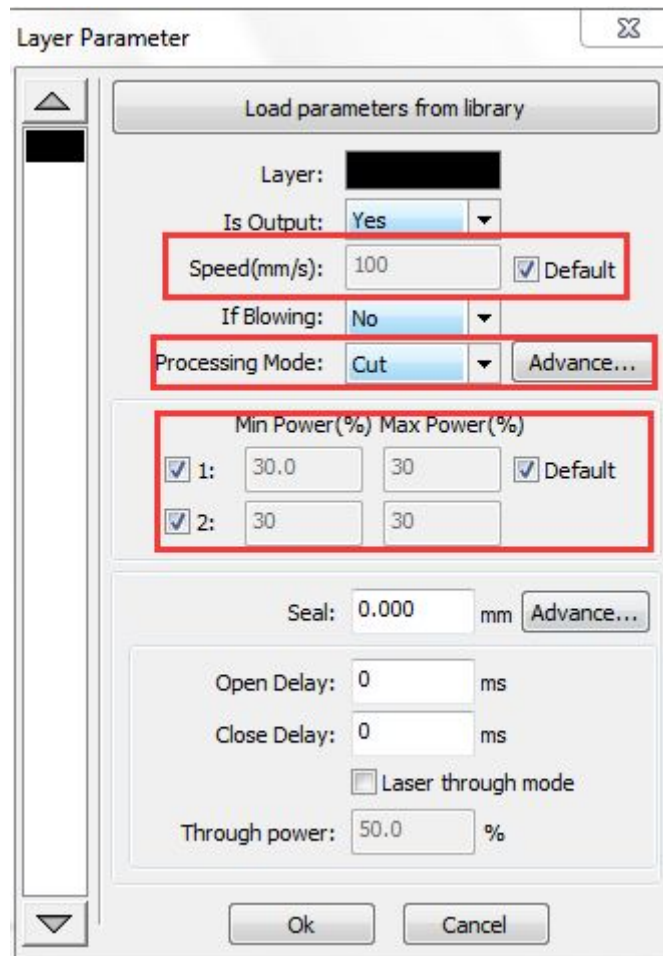
Click "Install USB driver" button to install mainboard driver, and click “Install” button to install Laserworks software, when finish, click “Exit”.

3. Transfer a design to the machine. Connect USB cable between your computer and machine, there are two USB ports on the machine side, the upon one is used for flash disk transfer data, and the other is used for computer direct transfer.

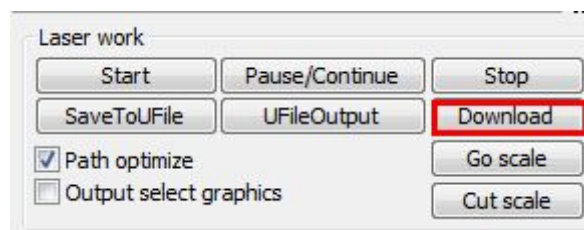
Open “Laserworks” software, the computer will install the mainboard driver automatically, when show “ your device is ready to use” means the driver installation correct. Draw a 30mm circle, see as follow shows:



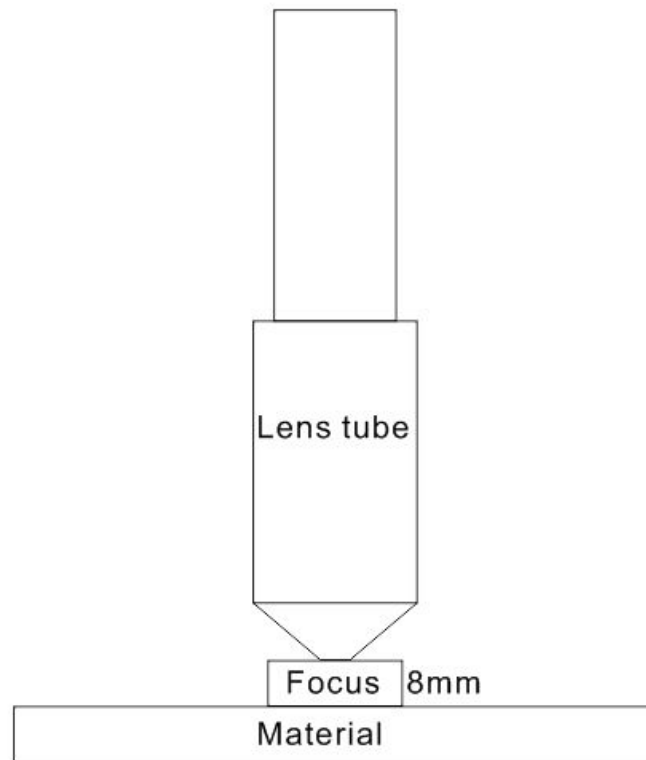
- Double click layer, we can set “Layer Parameters”, select speed for default, select processing mode, if for cutting ,select “Cut”, if for engraving, select “Scan”, Min-Power and Max-Power also for default, then click “OK”, see as follow:



Select “Path optimize”, then click “Download” to transfer data to machine, see as follow:



5. Start to cut sample. We come to machine side, press “File” key on the panel, we can see the file we just transferred, press “Enter” to enter the parameters setting interface, use direction keys to change the speed to 10mm/s(for 8mm acrylic), change the Min-Power and Max-Power to 98%. Move the laser head to a proper position, press “Original” key, and then press “Frame” key, the machine will move the frame, when the position no problem, manual adjust the lens tube to make the distance between the end of lens tube and the material up surface is 8mm, see as the follow:



When the focus is OK, off the door cover, switch on the exhaust fan, press “Start-Pause” key on the panel to start work.